

REMARKS

Claims 1, 5, 16, 20, 21, 25, 26 and 30 are pending in this application. By this Amendment, claims 1, 16, 20, 21, 25, 26, and 30 are amended and claims 6, 10, 11, 15 and 31 are canceled without prejudice to or disclaimer of the subject matter recited therein. Support for the amendments to claim 1 can be found, for example, in the original claims. Claims 16, 20, 21, 25, 26, and 30 are amended for form. No new matter is added. Applicants request reconsideration of the application based on the foregoing amendments and the following remarks.

Request to Admit the Amendment

Applicants believe that the foregoing amendments present the rejected claims in better form for appeal. Pursuant to 37 C.F.R. §1.116(b), Applicants respectfully request that the Examiner admit the Amendment. The foregoing amendments are necessary to sufficiently define the invention described in claims 1, 5, 16, 20, 21, 25, 26 and 30. Moreover, the amendments do not add new claims and do not require additional search by the Examiner, as the amended claims merely incorporate subject matter previously presented. Also, the amendments were not previously presented as they are in response to the current rejections. Upon these good and sufficient reasons for why the amendments are necessary and were not earlier presented, Applicants request the Examiner admit the amendment pursuant to 37 C.F.R. §1.116(b).

Rejections under 35 U.S.C. §103(a)

To establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited prior art reference must teach or suggest all of the claim limitations. Furthermore, the suggestion to make the claimed combination

and the reasonable expectation of success must both be found in the prior art, and not based upon the Applicants' disclosure. A failure to meet any one of these criteria is a failure to establish a *prima facie* case of obviousness. See MPEP §2143.

Claims

The Office Action rejects claims 1, 5, 6, 10, 21 and 25 under 35 U.S.C. §103(a) as being unpatentable over Fiedlschuster et al. (U.S. Patent No. 6,213,306, hereinafter "Fiedlschuster"), in view of Olivier (U.S. Patent No. 5,373,946) and further in view of Tse (U.S. Patent No. 6,955,265, hereinafter "Tse") and Tse (U.S. Patent Application Publication No. 2007/0084765, hereinafter "Tse '765"). By this Amendment, claims 6 and 10 have been canceled, thus rendering moot the rejection of claims 6 and 10. Applicants thus respectfully traverse the rejection of claims 1, 5, 21 and 25 and request reconsideration of these claims.

The applied references, either alone or in combination, do not disclose and would not have rendered obvious "measuring the specific gravity of the liquid in the precipitation tank; and adding the medium into the precipitation tank if the measured specific gravity is lower than the reference specific gravity, or adding water into the tank if the measured specific gravity is higher than the reference specific gravity," and "the component to be recovered is recyclable aggregate, and the remaining components are impurities having a specific gravity lower than that of the aggregate," as recited in amended independent claim 1.

The Office Action asserts that Feidlschuster's claim 1 discloses features that allegedly render obvious "the component to be recovered is recyclable aggregate, and the remaining components are impurities having a specific gravity lower than that of the aggregate," as recited in amended independent claim 1 (emphasis added) (see Office Action, pages 4-5). Applicants disagree with this assertion for at least the following reasons.

Feidlschuster's claim 1 merely discloses segregating recoverable material components, such as recyclable plastics, from raw refuse by allowing the impurities in the raw refuse (i.e., relatively heavy component materials) to sink downward in a horizontal fluid flow, such that the recoverable material components are separated from the impurities (see Feidlschuster, claim 1). Thus, Feidlschuster teaches separating recyclable material from raw refuse where the impurities have a specific gravity greater than that of the recyclable material.

Feidlschuster further discloses that the different types of recoverable material components that remain, such as recyclable plastics, can be separated according to a float-and-sink method, in which some types of the recyclable plastics float in a fluid and some other types of the recyclable plastics sink in the same fluid (see Feidlschuster, claim 1). Thus, Feidlschuster merely teaches that its recyclable aggregate has both a larger specific gravity than the specific gravity of the surrounding fluid and a smaller specific gravity than the specific gravity of the surrounding fluid. Consequently, it follows that Feidlschuster does not disclose a method of recovering only recyclable aggregate from construction waste where the impurities have a specific gravity less than that of the recyclable aggregate. As a result, Feidlschuster does not disclose and thus would not have rendered obvious the above-recited features of amended independent claim 1. Moreover, the other applied references, either alone or in combination, fail to remedy the above-described deficiencies of Feidlschuster.

In addition, the Office Action admits that Feidlschuster, Olivier, Tse, and Tse '765 fail to disclose "measuring the specific gravity of the liquid in the precipitation tank; and adding the medium into the precipitation tank if the measured specific gravity is lower than the reference specific gravity, or adding water into the tank if the measured specific gravity is higher than the reference specific gravity," as recited in amended independent claim 1 (see Office Action, page 6). However, the Office Action asserts that Smith remedies the admitted deficiencies of Feidlschuster, Olivier, Tse, and Tse '765 (see Office Action, page 6). Specifically, the Office Action asserts that Smith, at col. 17, lines 1-6, at

col. 26, lines 22-27, and at col. 42, lines 10-17, discloses features that allegedly correspond to the above-recited features of amended independent claim 1. Applicants disagree with this assertion for at least the following reasons.

The cited portions of Smith merely disclose that the additive to be added to a carrier liquid must be uniformly soluble in the carrier liquid, meaning that the entire additive must dissolve in the carrier liquid (see Smith, col. 17, lines 1-6). Smith thus teaches uniform solubility of an additive. Ensuring that an additive completely dissolves in a solution is not the same as measuring and maintaining a liquid at a predetermined uniform specific gravity, as is recited in amended independent claim 1.

In addition, Smith merely discloses a series of bench scale tests that demonstrate that the specific gravity of a parting liquid can be adjusted to increase the amount of ash separated from the coal (see Smith, col. 26, lines 22-27 and col. 42, lines 10-17). Indeed, Smith merely discloses multiple tests where the specific gravity of each test is different from other tests. However, these portions of Smith do not disclose that the specific gravity of the carrier liquid or the parting liquid is increased or decreased during the process of cleaning coal. In fact, given that Smith discloses conducting a series of individual bench scale tests to determine how different values of the specific gravity of the parting liquids effects the separation of ash from the coal suggests that these results could not be obtained by conducting a single test where the specific gravity of the parting liquid could be increased or decreased during the test. This naturally leads one of ordinary skill in the art to conclude that a series of individual tests was required because Smith did not adjust the specific gravity of the parting liquid during each individual test. Accordingly, Smith does not disclose “measuring the specific gravity of the liquid in the precipitation tank; and adding the medium into the precipitation tank if the measured specific gravity is lower than the reference specific gravity, or adding water into the tank if the measured specific gravity is higher than the reference specific gravity,” as recited in amended independent claim 1

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(see Office Action, page 6). Moreover, the other applied references, either alone or in combination, do not cure the above-described deficiencies.

For at least the foregoing reasons, Applicants respectfully request that the obviousness rejection of claim 1 be withdrawn.

Claims 5, 21 and 25 depend from independent claim 1. Accordingly, claims 5, 21 and 25 are allowable for, among other reasons, depending from an allowable base claim. Applicants therefore respectfully request that the obviousness rejection of claims 5, 21 and 25 be withdrawn.

The Office Action rejects claims 11, 15, 16 and 20 under 35 U.S.C. §103(a) as being unpatentable over Fiedlschuster, in view of Olivier, Tse, and Tse ‘765, and further in view of James et al. (U.S. Patent Publication No. 2003/0213290, hereinafter “James”). By this Amendment, claims 11 and 15 are canceled, thus rendering moot the rejection of claims 11 and 15. Applicants thus respectfully traverse the rejection of claims 16 and 20 and request reconsideration of these claims.

Claims 16 and 20 depend from independent claim 1. Accordingly, claims 16 and 20 are allowable for, among other reasons, depending from an allowable base claim. Applicants therefore respectfully request that the obviousness rejection of claims 16 and 20 be withdrawn.

The Office Action rejects claims 26, 30 and 31 under 35 U.S.C. §103(a) as being unpatentable over Fiedlschuster in view of Olivier, Tse, and Tse ‘765, and further in view of Smith et al. (U.S. Patent No. 4,265,737, hereinafter “Smith”). By this Amendment, claim 31 is canceled, thus rendering moot the rejection of claim 31. Applicants respectfully traverse the rejection of claims 26 and 30 and request reconsideration of these claims.

Claims 26 and 30 depend from independent claim 1. Accordingly, claims 26 and 30 are allowable for, among other reasons, depending from an allowable base claim.

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Applicants therefore respectfully request that the obviousness rejection of claims 26 and 30 be withdrawn.

Regarding Doctrine of Equivalents

Applicants hereby declare that any amendments herein that are not specifically made for the purpose of patentability are made for other purposes, such as clarification, and that no such changes shall be construed as limiting the scope of the claims or the application of the Doctrine of Equivalents.

CONCLUSION

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

If any fees, including extension of time fees or additional claims fees, are due as a result of this response, please charge Deposit Account No. 19-0513. This authorization is intended to act as a constructive petition for an extension of time, should an extension of time be needed as a result of this response. The Examiner is invited to telephone the undersigned if this would in any way advance the prosecution of this case.

Respectfully submitted,

By: /Brandt D. Madsen/
Brandt D. Madsen
Reg. No.: 65,085

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SCHMEISER, OLSEN & WATTS LLP
18 East University Drive, #101
Mesa, AZ 85201
(480) 655-0073
Customer No. 23123